

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

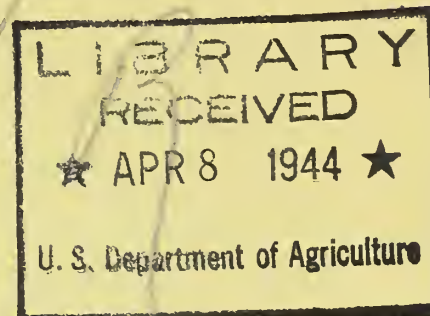
S O I L C O N S E R V A T I O N L I T E R A T U R E
S E L E C T E D C U R R E N T R E F E R E N C E S

V.3

September/October, 1939

No.5

1.96
R312
Cop. 2



Periodical Articles	Page 122
Book and Pamphlet Notes and Abstracts	Page 140
State Experiment Station and Extension Publications . .	Page 148
U.S. Government Publications	Page 152
Translations.	Page 159
Bibliographies and Lists	Page 160
Personnel and Training.	Page 160

"Soil erosion is altering the course of
world history more radically than any
war or revolution." - G. V. Jacks

Compiled By The Library Staff Of The Soil Conservation Service
From Publications Received In The
United States Department of Agriculture Library, Washington, D.C.

The publications listed herein may in most cases be borrowed from the Library of the Soil Conservation Service by members of the Washington and field staffs.

Field office requests for loans should be submitted by letter through the Regional Office libraries. Complete citations, together with source of references, should always be included.

Washington office requests should be submitted on Form SCS-405, which will be supplied by the Library on demand.

Mildred Benton

Librarian

TO OUR READERS

As a result of circularizing the mailing list, it was found that not a sufficient number of persons are interested in having "Soil Conservation Literature" mimeographed on one side only to warrant making the change. If those who clip various items for the purpose of pasting them on index cards believe that they would be benefited by receiving two issues, and will apply direct to the Service Library in Washington, consideration will be given to such requests.

Mildred Benton
Librarian

PERIODICAL ARTICLESAgriculture

Brannen, C.O. Adjusting agriculture and services to the needs of farm people. Southwest.Social Sci.Quart.20(1):1-11. June 1939.

"Presidential address delivered at the twentieth annual meeting of the Southwestern Social Science Association, Dallas, Texas, April 7, 1939."

Hannah, H.W. and Vandervliet, Bert. Effects of strip mining on agricultural areas in Illinois and suggested remedial measures. Jour.Land & Pub.Utility Econ.15(3):296-311, tables. August 1939.

Moore, H.R. Tax delinquent rural land unsuited for agriculture in the southeastern Ohio. Ohio Expt.Sta.Bimo.Bul.24(197):34-35, table. March-April 1939.

Table indicates chronically tax delinquent lands in Hocking and Scioto counties classified according to adaptability to agricultural use.

Black Locust

Roberts, E.G. Soil depth and height growth of black locust. Jour. Forestry 37(7):583-584. July 1939.

Reports average height of black locust trees four years in the field at different depths of surface soil.

"This study made in Lauderdale county, Miss. emphasizes the fact, already well established in the minds of many foresters, that black locust is not a 'poor land' crop. Its effective use in erosion control is limited to those places where considerable surface soil has accumulated."

Cover Crops

Cullinan, F.P. Cover crops for peaches. South. Planter 100(9):4, illus. September 1939.

Klein, Jack. A new cover crop and forage plant, wedge pea. Calif. Cult. 86(17):459. Aug. 26, 1939.

Smith, J.L. Planting crotalaria as a cover crop. Citrus Indus. 20(7):6, 18. July 1939.

Crop Residues

Duley, F.L. and Russel, J.C. The use of crop residues for soil and moisture conservation. Amer. Soc. Agron. Jour. 31(8):703-709. August 1939.

"Literature cited," p. 709.

Refers to Great Plains.

New farming system? West. Farm Life 41(15):2. Aug. 1, 1939.

"A new system of non-irrigation farming in which the land would always remain 'right side up' is a possibility as a result of soil and moisture experimental work underway at the University of Nebraska" under the direction of J.C. Russel and F.L. Duley.

Dams

Bollinger, C.J. Upstream aspects of the proposed Red River dam near Denison, Texas. Southwest. Social Sci. Quart. 20(1):12-18. June 1939.

Carter, C.H. Deer Creek Dam, Provo River project, Utah. Reclam. Era 29(8):210-213, illus., figs. August 1939.

Stratton, J.H. Engineering features of Conchas dam project. Boston Soc. Civ. Engin. Jour. 25(4):497-516. October 1938.

Includes information on hydrology of the watershed. The dam is near Raton, N. Mex.

Drought

Baird, W.P. Growing fruit trees to withstand drought. N. Dak. Agr. Expt. Sta. Bimo. Bul. 1(6):9-10. July 1939.

"The following practices are recommended to enable fruit trees to endure drought: 1. Choose comparatively level land to reduce surface run-off. Sometimes advantage can be taken of land receiving run-off waters from higher levels. 2. If sloping land is used, plant on level contours or terraces, and cultivate across rather than up and down the slope. 3. Shelter from winds is needed on the south, west, and north sides of the fruit garden. 4. Standard spacing is desirable in contrast to close spacing. 5. Practice clean cultivation throughout the growing season to eliminate weeds and thus conserve soil moisture."

Edwards, A.D. The sociology of drought. Rural Sociology 4(2):190-202, figs., tables. June 1939.

"This study of a drought area county in the Southern Great Plains attempts to analyze the effects of recurrent drought on population, systems of farming, standard of living community organization, public relief and assistance, and attitudes and opinions. A striking similarity of the effects of drought upon community life is apparent in a comparison of several drought periods. The general pattern of social changes during drought is summarized. An outstanding feature of the recent drought of 1932-36 has been the large amount of federal assistance which has served to stabilize the farming economy. Recommendations to avert the most disastrous effects of future droughts do not involve a complete shift from wheat growing but rather a better adaptation of this type of farming to the climate of the Great Plains along with increased diversification and greater emphasis on measures designed to control soil blowing."

Evaporation

Lloyd, David. Evaporation over catchment areas, II. Quart. Jour. Roy. Met. Soc., London, 65(281):385-396, tables. July 1939.

Summary: "Information has been extracted from Government sources relating to drainage areas situated in northern Italy. Values of general rainfall, loss and weather details are tabulated. The provisional formula, advanced recently to estimate the probable loss by evaporation over catchment areas, is applied to these data. The values of loss, expected on account of the weather and permeability of sub-surface, are shown to be of the right magnitude."

Farm Forestry

Smith, N.C. Forestry in a balanced farm program, for Virginia]. South. Planter 100(8):4, 12-13, illus. August 1939.

Woodlot tax exemption. Wis. Conserv. Bul. 4(7):6-8. July 1939.
Quotes Cashman woodlot exemption law in force in Wisconsin.

Floods and Flood Control

Hathaway, G.A. The importance of meteorological studies in the design of flood control structures. Amer. Met. Soc. Bul. 20(6):248-253, illus. June 1939.

Models of "old man river" help keep floods in check. Hydraulics conference (Society for the promotion of engineering education, Hydraulics conference, Iowa City) also hears of method of making waves stand still by means of an endless treadmill. Sci. News Letter 36(1):5, illus. Jly. 1, 1939.

In the illustration "confetti shows plainly how currents approach the spillway in the river model. Below the spillway active erosion is taking place."

Forests and Forestry

Cline, A.C. The restoration of watershed forests in the hurricane area of New England. New England Water Works Assoc. Jour. 53(2): 223-237, illus. June 1939.

Hammatt, R.F. Forest conservation and national security. Sci. Mo. 49(2):121-134, illus. August 1939.

Hertzler, R.A. Engineering aspects of the influence of forests on mountain streams. Civil Engin. 9(8):487-489, illus., table, figs. August 1939.

"References," p. 489.

Table I. "Discharge of streams in Coweeta experimental forest. Six-month summary - November 1, 1936, to April 30, 1937", p. 488.

"In progress at the Appalachian Forest Experimental Station, near Asheville, N.C., is a comprehensive investigation of the influence of forests on mountain streams. The objectives and methods of these studies, and some of the results to date, are outlined in the accompanying article. Of particular interest are the descriptions of the special stream-gaging devices, the data on the degree of stream control afforded by forest cover, and the conclusions in regard to infiltration capacity of forest soils."

Mattoon, W.R. Visual aids in teaching forestry - don't overlook still pictures. Jour. Forestry 37(8):658-659. August 1939.

Neff, Philip. Valuation of national forest lands. Jour. Forestry 37(8):598-600. August 1939.

The author discusses three court cases which upheld the reforestation or replacement cost theory for computing the damage to young growth or other forest cover not of commercial or merchantable size or character. He is of the opinion "that foresters, forest users, soil conservationists and others may take considerable satisfaction in these decisions, recognizing as they do, real social values in our public forests though they cannot be commercially defined."

Ross, C.R. Wilderness resurgent. Amer. Forests 45(9):439-440, 476, illus. September 1939.

"A forest wilderness is on the march in the Southern Appalachians. In a vigorous advance it is reoccupying thousands of acres wrested from it during the last century and a half by intrepid settlers. The movement is unusual. America has always seen man invading and pushing back the wilderness - but here the tables are turned. A resurgent wilderness is sweeping over former human habitations on a far-flung front."

Shirley, H.L. and Meuli, L.J. Influence of moisture supply on drought resistance of conifers. Jour. Agr. Res. 59(1):1-21, tables, figs. July 1, 1939.

"Literature cited," pp. 20-21.

Grass and Grass Seeds

Hay, W.D. Identification of standard and fairway strains of crested wheatgrass. Amer. Soc. Agron. Jour. 31(7):620-624, illus. July 1939.

Grasses and Grassland

Cornelius, D.R. Side-oats grama for erosion control. Soil Conserv. 5(1):3-6, illus., tables. July 1939.

Freeland, Roy. Return of the open prairie. Kansas cattlemen push thriving industry as grass stages speedy comeback in the bluestem region. Kans. Farmer 76(17):3, 12, illus. Aug. 26, 1939.

Hansen, N.E. A million-acre community pasture. Country Gent. 109 (8):13, 59, illus. August 1939.

Describes the Canadian plan for regrassing vast areas of drought-stricken and abandoned land. Crested wheat-grass is indicated to be most suitable for the undertaking.

Mullen, L.A. Giant wild-rye in the conservation program. Soil Conserv. 5(1):1-3, illus. July 1939.

Quotations from field reports and correspondence with ranchers stress the value of the species in the Pacific Northwest.

Shelford, V.E. and Yeatter, R.E. Land holdings of North American universities with particular reference to grassland. Ecology 20(3):450-454. July 1939.

"In spite of all the disaster that recent years have shown to agriculture and industry in the Plains states, only five institutions hold any grassland for scientific research and instruction...the greatest centers of grassland study...are without lands for research and instruction."

Toman, J.F. First papers awarded crested wheatgrass. Not yet accreted full citizenship. Mont. Farmer 26(16):3, illus. Apr. 15, 1939.

Urges wider use of crested wheatgrass by Montana ranchmen so that its merits can better be compared with native grasses.

Wallop, O.M. Crested wheatgrass. Mont. Farmer 26(16):5. Apr. 15, 1939.

A Wyoming farmer reports improvement from year to year in his crested wheat meadows, while his dry land alfalfa meadows "have practically gone to pieces". Because it is not a ground cover crop, he "would not recommend it to be planted where there is a chance of soil erosion from wind or rain".

Weaver, J.E. and Hansen, W.W. Increase of sporobolus cryptandrus in pastures of eastern Nebraska. Ecology 20(3):374-381, illus. July 1939.

"Literature cited," p. 381.

Summary: "Sand dropseed, sporobolus cryptandrus, occurred only rarely and sparingly in native pastures of eastern Nebraska before the great drought of 1934. It has since increased so rapidly that it is now one of the most abundant and important pasture grasses. This species, of wide distribution westward, renews growth in early spring, develops

rapidly, and is not readily injured by close grazing. It is a prolific seeder and under proper grazing soon reclaims pastures where blue-grass and little bluestem have died. Its resistance to drought is due in part to an excellent root system. In eastern Nebraska, it is of good palatability, produces much forage, and is efficient in protecting the soil against loss by erosion."

Weber, G.L. A method of preparing some native grass seeds for handling and seeding. Amer. Soc. Agron. Jour. 31(8):729-733. August 1939.
A report on work done at the SCS nursery, Mandan, North Dakota.

Groundwater

Engler, K. and Carter, D.G. Ground water resources. Agr. Engin. 20(7): 263-264, 266, tables. July 1939.

Summary: "1. A 10-year study of the ground water conditions in the Grand Prairie of Arkansas has been conducted by the University of Arkansas college of agriculture in cooperation with other agencies.

"2. The irrigation water requirement during the past 10 years amounted to approximately 20 acre-inches per year, on an average of 124,000 acres of rice per year, 90 per cent of which was pumped from the Pleistocene sands.

"3. The withdrawal of water has resulted in a lowering of the ground water by an average of 0.8 ft. per year; however, the decline varies with seasonal rainfall, acreage, and location.

"4. A continuous chart record affords evidence of a gradual and persistent decline of the ground water level, and shows annual, seasonal, and daily fluctuations.

"5. It is evident that under present conditions the safe yield of the Pleistocene sands is being exceeded each year. Additional research study is under way to determine the safe yield and the possibility of developing economical surface supplies of irrigation water."

Highway Erosion Control

Erosion control on a road fill. Engin. News-Rec. 123(5):148, illus. Aug. 3, 1939.

"Contour ridges of stakes and wattles check wash of several fill slopes on a Missouri highway. Construction costs only half as much as full sodding."

Mackenzie, C.A. Gridiron sodding for road fill. Engin. News-Rec. 123(7):210, illus. Aug. 17, 1939.

Unusual use of sod lining for shoulder and down-slope gutters on road fills (in New York State) described. Strip sodding and seeded panels used to protect areas between gutters.

Erosion has been successfully prevented during several heavy rains.

Precast spillway-ditch lining. Engin. News-Rec. 123(9):279, fig. Aug. 31, 1939.

Describes spillways designed to prevent erosion by Division of highways, California department of public works and to provide for heavy runoff along the Angelus Crest highway in Southern California.

Hydraulics and Hydrology

Baird, R.W. Watershed and hydrologic studies on the Blacklands experimental watershed. Agr. Engin. 20(7):273-276, illus. July 1939.

"Presented before the Soil and Water Conservation Division at the fall meeting of the American Society of Agricultural Engineers, at Chicago, Ill., December 1, 1938."

Blaisdell, F.W. Discharge of V-notch weirs at low heads. Civil Engin. 9(8):495-496, figs. August 1939.

Kennison, K.R. Design of an open-channel control section. Amer. Soc. Civ. Engin. Proc. 65(5):763-770, tables. May 1939.

"In designing an open channel to measure the flow of water, the shape of the controlling section to produce any desired rating curve can be determined by a definite mathematical relationship, the expression of which is claimed to be new, and to have possibilities in the application to practical problems. An analysis of the problem is contained in this paper. For example, if it is desired to modify a Venturi flume so that the rating curve at the given piezometer section immediately upstream from the controlling throat will be a predetermined convenient straight line, it can be done readily by the method presented herein. The writer first outlines the principles involved and arrives at mathematical expressions for the shape of the controlling section in terms of the desired rating, and then illustrates the application by the solution of specific problems."

Sutton, J.G. Hydraulics of open ditches. Agr. Engin. 20(5):175-178, 180, diags. May 1939.

"Presented before the Soil and Water Conservation Division at the fall meeting of the American Society of Agricultural Engineers, at Chicago, Ill., December 2, 1938. Mr. Sutton (Mem. A.S.A.E.) is district engineer, Bureau of Agricultural Engineering, U.S. Department of Agriculture."

Irrigation and Drainage

Bingham, G.H. Irrigation of alfalfa and small grains in Montana. Reclam. Era 29(7):180, 182. July 1939.

Staebner, F.E. Supplementary irrigation on the Atlantic Coast. Agr. Engin. 20(7):271-272, 276, illus. July 1939.

"Presented before the Soil and Water Conservation Division at the fall meeting of the American Society of Agricultural Engineers at Chicago, Ill., December 2, 1938."

Taylor, C.A. Development of methods for thorough irrigation. Calif. Citrog. 24(2):52, illus. December 1938.

Tests on over 1000 acres of citrus and walnut orchards showed the advantages of applying irrigation water in broad, shallow furrows rather than in narrow, deep ones. A machine for making these furrows is described.

Tetreau, E.D. The people of Arizona irrigated areas. Rural Sociology 3(2):177-187. June 1938.

"The chief task undertaken in this paper has been to select, present and briefly interpret certain facts about the people of Arizona irrigated areas that are essential to intelligent planning for their welfare."

Unique method of drainage devised by San Fernando grower. Calif. Citrog.24(3):120,illus. January 1939.

"Sketch shows how drainage laterals were constructed.Trenches were dug to a depth of four feet with smaller ditches the depth and width of a shovel blade in the bottom.The latter were filled with rocks about two inches in size and then covered with a layer of beanstraw and manure.The trenches were then filled with dirt.Drainage laterals of this type have been recommended by the University of California on certain types of soil."

Land Classification

Hammar,C.H. Land classification to aid the appraiser. Jour.Land & Pub.Utility Econ.15(3):277-286,table. August 1939.

"The purposes of this article will be (1)to describe very briefly the types of land-classification information now available to the appraiser,(2)to attempt a critical estimate of the usefulness of certain of these,(3)to point out particular developments in the techniques and methodology of land classification which have some promise from an appraisal point of view,and(4)to suggest the information that a land-classification system should provide in order to be of maximum usefulness to appraisers."

Land Utilization

Erickson,F.C.and Levitt,W.H. Land utilization of the University Lake drainage basin,N.C. Econ.Geogr.15(3):293-302,figrs. July 1939.

Gray,A.J. Land use aspects of reservoir problems,in the Tennessee valley. Econ.Geogr.15(3):238-242,figrs. July 1939.

Jackson,Donald. Land tax delinquency and land use. U.S.Bur.Agr. Econ.Agr.Finance Rev.2(1):1-8. May 1939.

"The relation of tax delinquency to public programs of land-use planning is one of the primary current interests in rural delinquency."

Matthews,J.R. The ecological approach to land utilisation. Scot. Forestry Jour.53(1):23-34. March 1939.

"An address delivered to the Aberdeen Branch of the[Royal Scotch Forestry,Society on 29th October 1938."

Some aspects of land ownership in Texas county. Okla.Agr.Expt.Sta. Current Farm Econ.11(6):136-146,tables. December 1938.

"Results of an analysis of the land ownership data for Texas County indicate that there is an inverse relationship between size of holdings and assessed value of land.In this county private ownership tends to be greater upon the better grades of land,and corporation holdings greater on poor grades of land.Land ownership data seem to be a fairly accurate indicator of the character of land utilization."

Tables are as follows:"Distribution of land ownership by areas in selected congressional townships,Texas county,Oklahoma,1936.":"Average size of tract for different types of ownership and average assessed value per acre of privately owned land by areas,in selected townships,

Texas county, Oklahoma, 1936": "Percentage distribution and average value of land, and average size of holdings, by areas, Texas county, Oklahoma, 1936": "Percentage distribution and average value of land, and average size of holdings, by areas, Texas county, Oklahoma, 1936": "Distribution of types of land ownership by areas, Texas county, Oklahoma, 1936."

Steanson, Oscar. Square meals from spare acres. U.S. Bur. Agr. Econ. Land Policy Rev. 2(4):1-6. July-August 1939.

A discussion of possible shifts in the use of land and what consideration should govern such shifts, to improve the well-being of farm people and conserve the land based on a statistical study of food and feed in 8 southern states.

Wilner, Stanley and Schafer, R.L. A statistical analysis of land ownership in North Dakota, 1935. N. Dak. Agr. Expt. Sta. Bimo. Bul. 1(6):10-14. July 1939.

"It is hoped that this presentation of basic data on land ownership will also be useful in the determination and planning of action programs for agricultural conservation and land-use adjustment in North Dakota."

Gives acreage of individual, corporation, public (county tax-deed land, state and school, bank and federal) and Indian land.

Pasture Improvement

Lush, R.H. Some opportunities for pasture improvement in the South. Amer. Fert. 91(4):5-7, 24. Aug. 19, 1939.

Includes 6 suggestions for improvement which will change the slogan of "Let more land go to grass" to "Help the land to grow more nutritious grass."

Range and Pasture Management

Bell, H.M. Stockman's records reflect proper land use. Soil Conserv. 9(1):10-11, illus. July 1939.

Includes tabulations compiled from a Texas ranchman's record which indicate not only the immediate financial gain resulting from range conservation practices but a more enduring result reflected in the protection and perpetuation of the rancher's investment in the land.

Daubenmire, R.F. Range extensions for southeastern Washington and adjacent Idaho. Leaflets West. Bot. 2(2):199-200. Jly. 22, 1939.

Lists several plants not included in the revision of St. John's "A Manual to the Flora of Southeastern Washington and Adjacent Idaho."

Saunderson, M.H. Room on the range. U.S. Bur. Agr. Econ. Land Policy Rev. 2(4):27-29. July-August 1939.

A discussion of the size and type of stock farms and ranches necessary to cope with climatic fluctuations and range management problems and requirements of the Northern Great Plains.

Research

Slipher, J.A. How to recognize and evaluate a research problem.
Agr. Engin. 20(8):309-310. August 1939.

Paper presented before the research group at the annual meeting of the American Society of Agricultural Engineers at St. Paul, Minn., June 19, 1939.

River Bank Erosion

Besson, F.S., Jr. Asphalt revetments tested by floods of two seasons. Willamette river bank protection experiments demonstrate the treatment to be economical and durable under favorable conditions.

West. Construct. News 14(4):128-130, illus. April 1939.

"Erosion of banks, on the Willamette River in Oregon, in amounts which do not justify the large-scale use of standard hand-placed rock riprap but yet need protection, has presented a peculiar problem in erosion control. Consequently, considerable effort has been made by the Corps of Engineers to develop a cheaper method of bank protection. The experimental work herein described tends to show that asphaltic revetment may be the solution to the problem."

Christison, W.E. Typical flood control project construction. Bank erosion is a real problem in southern California. How asphalt was used for revetment work and tested during recent floods. Pacific Road Builder and Engin. Rev. 50(5):22-24. May 1939.

Herion, G.A. River bank protection. Soil Conserv. 5(1):6-9, illus. July 1939.

Describes major types of structural protection now used on the Gila river, including the rail tetrahedron, the driver rail and tree type and the tree and cable revetment; the use of tree and shrub forms of willow for effective bank protection and stream channel stabilization; and accepted planting methods, the vertical, horizontal and the angular or stream-bank.

Run-off

Collins, W.T. Runoff distribution graphs from precipitation occurring in more than one time unit. Civ. Engin. 9(9):559-561, table. September 1939.

Rural Zoning

Lubell, Samuel and Everett, Walter. Rural zoning. Six states; Michigan, California, Indiana, Pennsylvania, Washington and Tennessee, have taken a leaf from Wisconsin's common-sense approach to its farming problems. Current Hist. 50(6):32-35, 60, illus. August 1939.

Sedimentation and Silt

Majumdar, S.C. River problems in Bengal. Silt, the dominating factor. Indian Engin. 105(6):204-208. June 1939.

Otto, G.H. A modified logarithmic probability graph for the interpretation of mechanical analyses of sediments. Jour. Sedimentary Petrology 9(2):62-76, illus. August 1939.

Soil Classification

Eddy, C.D. Assessment of rural lands. Soil classification system outlined. Tax Digest 17(7):232-234, 243-249, tables. July 1939.
The author is assessor, San Diego county, California.

Soil Colloids

Kelley, W.P., Dore, W.H., Woodford, A.O., and Brown, S.M. The colloidal constituents of California soils. Soil Sci. 48(3):201-255, tables. September 1939.
"References," pp. 254-255.

Soil Conservation

Darling, J.N. Relationship of our Government to conservation. Md. Conserv. 16(3):16-19. Summer issue 1939.
Emphasizes the importance of education for conservation and suggests method of approach.

Musser, R.H. The organization meets the people and the land. Soil Conserv. 5(2):21-27, illus. August 1939.
An analysis of the Soil Conservation Service setup and how it does its job.

Sears, P.B. Science and the new landscape. Harper's Mag. 179:207-216. July 1939.

This article is concerned with the redesigning or restoration of the American landscape "to a condition of health and constructive activity," with the help of the scientist and the people.

The point is made that "conservation is not a subject which can be taught. It is a way of life into which we must grow as a people."

Winters, S.R. An oasis out of waste. So. Agr. 69(9):18, illus. September 1939.

How the small mountain settlement of Bell Creek, in Towns County, Georgia, is making the most of limited acreage and conserving soil through the use of TVA's concentrated phosphate.

Soil Erosion and Control

Earthfill slope protection. Engin. News-Rec. 123(5):147, illus. Aug. 3, 1939.

"Unusual care was taken to prevent erosion on the slope of an earth-fill dam at the forebay of the Stanislaus power plant in California owned by the Pacific Gas and Electric Co. The slope is steep (1-2/3 to 1), the material is light and occasionally there is heavy rainfall, all of which contribute to the importance of making effective protection against erosion.

"This was done by building channels that would convey the runoff

from rain and melting snow to the ends of the structure thus prevent-water from flowing down the slope. The channels were formed by driving 4x6-in. redwood posts as supports for 2-in. redwood plank-runs along the surface of the dam. Workmen with shovels filled in earth behind the boards, and sprinkling and tamping aided in forming channels with relatively imperivous side slopes. The result has been that in some 30 years of operation there has been no washing of the slope."

Entire item quoted.

Erosion below stilling basin: confirmation of model indications. U.S. Waterways Expt. Sta. Bul. (Hydraulics) 2(4):34-35, figs. Aug. 15, 1939.

Refers to Professor Th. Rehbock's model-analyzation of the stilling basin of the Ryburg-Schwörstadt weir on the Upper Rhine River.

Harper, H.J. A comparison of two types of concrete slab structures for soil erosion control. Agr. Engin. 20(8):307-308, illus. August 1939.

Jenkins, R.B. Cedars and poverty. Cattleman 26(1):61-62, illus. June 1939.

A Texas county agent tells of the destructive spread of the sap-cedar in Texas and its encroachment on other protective vegetation with resultant erosion of land, silting of streams and disappearance of wildlife.

Kohnke, Helmut and Dreibelbis, F.R. Methods of measuring soil erosion. Soil Research 6(4/5):232-241, table. 1939.

Summary - "Four methods of measuring erosion are enumerated. Two of them are designed to determine the total amount of erosion that has occurred since the first interference with natural conditions by man. They are: the conservation survey method, in which the amount of erosion is determined as the difference between the original soil profile and the present soil remnants, and the sediment survey method, in which the amount of soil settled out at the bottom of a watershed is measured and the amount of erosion calculated from the area drained and the amount of soil in the sediment.

"Two other methods determine the erosion while it occurs. In one case all of the soil carried in the run-off is measured, while in the other only the available plant nutrients carried away are estimated. The relative merits of these four methods are discussed."

Partain, L.E. Community attack on soil erosion. Jour. Land & Pub. Utility Econ. 15(3):354-358. August 1939.

Discusses the soil conservation district approach as a means for farmers to meet erosion and land use problems.

Seigworth, K.J. A work unit erosion control survey. Jour. Forestry 37(8):623-625, table. August 1939.

"This paper suggests one method of making an erosion control survey in terms of fairly tangible work units on large areas where reasonably accurate information is desirable and where maps which show roads and forest cover or open lands are available. It describes and summarizes an inventory of the erosion control job with which

the Department of Forestry Relations of the Tennessee Valley Authority is normally concerned in the light of currently accepted standards of desirable land use and in the light of current erosion control practices on six areas totaling 315,000 acres in eastern Tennessee."

Soil Erosion and Control. Foreign Countries

Ballantyne, J.A. Erosion in orchards. Agr.Gaz.N.S.Wales 50(7):378-379, illus. Jly.1, 1939.

Recommends contour planting for New South Wales.

Boerger, A. The fundamental factors of the Uruguayan forage problem. Impr.Bur.Plant Genet.Herbage Rev.7(2):70-79, illus. June 1939. Literature, pp.78-79.

Calls attention to the increasing amount of attention which must be paid to soil conservation in relation to the forage problem in Uruguay.

Brown, C.W. Conservation of soil fertility. The problem in erosion-labile districts, Cowra district, N.S.W. Agr.Gaz.N.S.Wales 50(6):294-296, illus. June 1, 1939.

Connell, R.P. "Land deterioration is a grave phase of our national economy." Serious position of large areas of our hill country sheep farms. New Zeal.Dept.Agr.Jour.59(1):4-12, illus. Jly.15, 1939.

Outlines various forms of land deterioration in New Zealand.

Edwards, D.C. Natural reversion to grass. Observations on the effect upon soil fertility of (a) established grass and (b) clover as compared with natural reversion to grass. East African Agr.Jour.4(6):411-414, illus. May 1939.

"References," p.414.

The author is in charge of grassland improvement, Department of Agriculture, Kenya Colony.

Gayford, G.W. Green manuring in the orchard. Victoria Dept.Agr.Jour. 37(3):121-123, 125, illus. March 1939.

Growing green crops during the winter supplies an addition to organic content of orchards soils and prevents soil erosion in Victoria.

Gori-Montanelli, Lorenzo. Il passo del Furlo. Riv.For.Ital.1(4):53-57, illus. June 1939.

Article in Italian.

The Furlo pass erosion control and afforestation works.

Gorrie, R.M. Reclamation of torrent-ruined lands: a Punjab contribution to rural reconstruction. Agr.and Livestock in India 9(3):248-250, illus. May 1939.

Hall, T.D. Lessons from this year's floods in South Africa. Virtues of silos, permanent pastures, hay-making from young veld and contour ridging signs of awakening in erosion control. Farmer's Weekly, Bloemfontein, 57:1136-1137, illus. Je.28, 1939.

Hallier, Ivan. Dams with a difference. A scheme based on the principle of using water where it falls to increase the moisture in soil and atmosphere. A fuller explanation of the silt-pipe process. Farmer's Weekly 57:1370-1373, illus. Jly. 19, 1939.

A South African farmer describes silt dams, recently completed, which he is confident will solve the problem of water control better than any other method now in use.

Inder, R.W. Soil erosion and grazing problems in Bombay. Indian Forester 65(6):345-348. June 1939.

Keast, A.J. Saving soil at Broken Hill. Rotarian 55 (1):27-29, illus. July 1939.

What three men did to stop soil blowing near Broken Hill, Australia and thereby contributed toward saving the central portion of the Australian Continent from becoming the man-made desert that it has threatened to become because of wind erosion and overstocking.

Kenya's erosion-beating grasses. Farmer's Weekly, South Africa, 57:1092. Je. 21, 1939.

"Dr. I. P. Pole-Evans, chief of the Division of Plant Industry, said that among the valuable grasses obtained by the Government expedition to East and Central Africa which he led last year, was a most remarkable grass for combating soil erosion called giant star grass of Great Rift Valley kweek, a single runner of which was nearly 50 feet long."

Lamont, N. Arresting deterioration of hill country. Improved system of grazing management is an essential preliminary. New Zeal. Dept. Agr. Jour. 59(1):13-17, illus. Jly. 15, 1939.

"A system of grazing management involving large mobs and frequent shifts, with heavy concentration of stock in each paddock for a short time, must be employed by hill country farmers (New Zealand) who wish to arrest deterioration. Other economic methods are available, but improved grazing technique is an essential preliminary."

Lester-Smith, W.C. Vegetation, climate, and soil and water conservation (in Ceylon). Trop. Agr. Ceylon 92(6):336-338. June 1939. References, p. 338.

Lowdermilk, W.C. Control of little waters in North Africa. Buried in the sands of two thousand years, ancient Roman works to control little waters emerge to guide and serve present-day conservationists. Amer. Forests 45(9):453-455, 478-480, illus. September 1939.

Lowdermilk, W.C. Footprints of Roman agriculture. Amer. Forests 45(8):407-409, 428-429, illus. August 1939.

"This is the second of a series of three articles."

McTaggart, A. Grass types suited to soil erosion control. Austral. Council Sci. & Indus. Res. Jour. 12(2):155-157. May 1939.

Natural resources board for S. Rhodesia. Government commission of inquiry emphasises need for pasture research and experimental stations in far-reaching recommendations. Farmer's Weekly 57:1249-1250, illus. Jly. 5, 1939.

Shirole, M.K. A note on the experimental work done on means of avoiding erosion by rainfall in moderately dry districts. Poona Agr. Coll. Mag. 30(4):149-158. February 1939.

Sinha, J.N. Reafforestation in Italy. Indian Forester 64(5):269-276, illus. May 1938.

"Reafforestation of bare hills is being carried out in Italy on a large scale. The general method is called 'gradoni' or level terracing, which has been perfected after extensive experiments."

Sobolev, S. The depth of erosion in the European part of USSR. Pedology no. 9, 1938, pages 1126-1144, illus.

Article in Russian: English summary.

"The author has compiled a map of the depths of the chief local erosion bases. He discusses the practical application of the map for purposes of antierosion measures, of water preservation and of division of forests according to their importance in water and soil preservation. Besides this he points to the possibility of an utilization of this map for introducing greater precision into the existing hydrogeological maps elucidating the perspective of the extension of irrigated areas and of the chief laws concerning the distribution of the soils and vegetation cover in the country."

The soil drift problem. Forage plants in the wheat belt. "Commonwealth" Agr. Melbourne, Australia 9(3):101-105, illus. April 1939.

Mentions experimental research in Australia "to determine whether there are forage plants which can be used in cropping rotations to increase stock carrying capacity on the one hand and, on the other, to build up soil fertility, prevent erosion, and eliminate soil drift".

Soil erosion and food exports. Farmers' Weekly 57:791. May 24, 1939.

"Speaking at a conference on nutrition, held in London, in mail week, Mr. G.V. Jacks, of the Imperial Bureau of Soil Science, said that restricted production of farm commodities was in 'the ultimate interests' of overseas exporting countries.

"There were forces at work, he said, which would compel a restriction of output, at least for export, from those countries which now supplied Britain with most of her food. The soils had been overworked and were now demanding a rest with an insistence 'that overrides all economic and nutrition theories'."

Utilization of soil and forest conservation in Finland. Finnish Trade Rev. Nos. 1&2:48-53, illus., tables. January-March 1939.

Zimmerman, C.C. Soil and men - blut and boden. U.S. Bur. Agr. Econ. Land Policy Rev. 2(4):18-26. July-August 1939.

"This analysis of a German village study made between August 1937 and January 1939 gives my direct observations and represents tentative conclusions concerning application of the lessons to the problem of agrarian organization, soil conservation, and land policy in the United States."

Znamenski, A. The vegetation cover and the changes in the ground level. Pedology no. 9, 1938, pages 1163-1172, illus.
Article in Russian: English summary.

Soil Moisture

Heller, I.A. and Kavestskii, N.S. Volumetric determination of moisture in the structural elements of the soil. Pedology pages 131-135. 1938.

Article in Russian.

"The structural elements of soil possess the power to absorb a definite quantity of water, which is relatively const. for a given horizon (capillary moisture). To det. the moisture content of a structural fragment of soil of which the capillary absorption is known, it is merely necessary to det. the amt. of water required to bring the fragment to complete satn. By this method it is possible to show that the moisture content of a given soil varies according to the size of the structural aggregates and the nature of its mode of formation." --Chem. & Indus. 41, 779. 1938. Quoted from Chem. Abs. 33(15): 5964. Aug. 10, 1939.

Karraker, P.E. and Bortner, C.E. Availability of soil moisture, particularly as affected by depth, in the soil of the Kentucky experiment station farm at Lexington. Amer. Soc. Agron. Jour. 31(7): 653-660, tables. July 1939.

Staebner, F.E. A soil moisture meter. Agr. Engin. 20(8): 317-318, illus. August 1939.

Describes a device that will automatically indicate the relative need for irrigation at any time.

Volk, N.J. The oxidation-reduction potentials of Alabama soils as affected by soil type, soil moisture, cultivation, and vegetation. Amer. Soc. Agron. Jour. 31(7): 577-589, tables. July 1939.

"Literature cited," pp. 588-589.

Wallihan, E.F. Use of tensiometers for soil moisture measurement in ecological research. Ecology 20(3): 403-412, illus. July 1939.

"Literature cited," p. 412.

Soil Movement

Holmes, J.M. The artificial stimulation of soil movement. Jour. Aust. Inst. Agr. Sci. 5(2): 84-89, figs. June 1939.

"Contribution to the discussion on Soil Erosion at the Canberra meeting of the A.N.Z.A.A.S., January 1939."

Soil Organic Matter

Hester, J.B. and Shelton, F.A. Geographical location and soil organic matter. Amer. Soc. Agron. Jour. 31(7): 598-603, tables. July 1939.

"Literature cited," p. 603.

Soil Studies

Cook, R.L. and Birdsall, B.J. A sampler for surface soils. Amer. Soc. Agron. Jour. 31(8): 736-737. August 1939.

Goodell, B.C. Soil freezing as affected by vegetation and slope aspect. Jour. Forestry 37(8):626-629, illus. August 1939.

"Freezing of soil practically, if not completely, closes it to the infiltration of water and thus results in increased surface run-off. Any agency which tends to prevent soil freezing tends to keep the soil permeable during all or a greater portion of the year and thus decreases the frequency of high rates of surface run-off and consequent floods. This article describes a study of soil freezing in which were compared the depths of freeze under different types of vegetation and also with different conditions of slope aspect."

Hide, J.C. and Metzger, W.H. The effect of cultivation and erosion on the nitrogen and carbon of some Kansas soils. Amer. Soc. Agron. Jour. 31(7):625-632, tables. July 1939.

"Literature cited," p. 632.

Puri, A.N. and Puri, B.R. Physical characteristics of soils: IV. Density gradients in sedimenting columns and a chaino-hydrometer for mechanical analysis of soils. Soil Sci. 48(2):149-160, illus. August 1939.

Remesov, N.P. The absorption capacity and the composition of exchangeable cations in the main soil types. Pedology no. 5, 1938, pages 688-689, illus.

Article in Russian.

English summary, pp. 688-689.

Volk, G.W. and Harper, H.J. A revised method for the microscopic examination of natural structure and pore space in soils. Soil Sci. 48(2):141-147, illus. August 1939.

"References," p. 145.

"A method is described in which Bakelite varnish is used to cement soil particles together in order that clods of soil can be ground to thin sections for microscopic examination... A method is proposed for the study and estimation of noncapillary pore space by filling the pores appearing in the polished face of a clod with white casein paste."

Surveys and Maps

Sayford, N.H. Organization of TVA surveying and mapping activities. Civil Engin. 9(8):473-476, illus. August 1939.

Vegetation

Heidenreich, V.T. Plant succession on denuded soil in western North Dakota. Jour. Forestry 37(8):654-656. August 1939.

Reports experiences with reseeding on the Berthold Indian Reservation.

Talbot, M.W., Biswell, H.H. and Horman, A.L. Fluctuations in the annual vegetation of California. Ecology 20(3):394-402, illus. July 1939.

"Wide fluctuations in herbaceous vegetation, as outlined... hold more academic interest. Directly related as they are to uncertainties in forage supply and soil cover, they complicate range and watershed management. Thus, as a factor in practical land use they have economic importance."

Whitman, Warren and Hanson, H.C. Vegetation on scoria and clay buttes in western North Dakota. Ecology 20(3):455-457. July 1939.

Water Conservation

Burleigh, H.P. Water planning for agriculture. U.S. Bur. Agr. Econ. Land Policy Rev. 2(4):42-44. July-August 1939.

Mason, C.Y. Water in the Laramie region of Wyoming. Econ. Geogr. 15(3):271-282, figs. July 1939.

Olson, W.S. Lake level control policy. Minn. Conserv. 67:12-13, illus. April 1939.

"Since no inland water conservation plan has been attempted on so large a scale, Minnesota has had to pioneer in its present program of developing and conserving state waters. In this article Mr. Olson explains the significance of the plan, as well as the many unpredictable and uncontrollable hazards involved."

"Tersely stated, the objective of the state's plan of lake level control is: To capture surface runoff and to retain it in the lakes so as to better maintain them against evaporation and early draining out to low levels while, at the same time, avoiding increased flood stages."

Perry, P.C. Stream control in relation to droughts and floods. Engin. Jour. 22(6):269-274. June 1939.

Bibliography.

Paper presented before Engineering Institute Canada.

Effect on stream control of vegetal covering, character of soil, size of drainage basin reservoirs, and other remedial measures, relationship between evaporation and precipitation, difference between streams in arid and humid districts, run-off from Canadian prairie; control through changes in cultivation, and vegetal covering control of erosion; use of flood walls, levees, and dikes in river control.

Wildlife Conservation

Annual plants of outstanding value to wildlife. Wildlife Rev., no. 22, pages 38-47. August 1939.

"During preparation of a manuscript on Plants Useful in Upland Wildlife Management, certain experienced field investigators were asked to contribute notes on the value of annual plants often classed as weeds. The information they furnished has been summarized in the manuscript but as fuller transcription of it probably will be of interest and value... essential parts of the replies, slightly edited, are herewith reproduced. In a few instances remarks are included on plants that are neither annuals nor weeds."

A Guilford county (N.C.) cooperator. Rotation of crops beneficial to wildlife. N.C. Wildlife Conserv. 3(8):4-6, illus. August 1939.

"While George G. Hedcock raises tobacco and cotton he practices a crop rotation system beneficial to wildlife by interspersing cotton and tobacco plantings with fields of small grain, lespedeza, crimson clover, and other crops furnishing foods valuable to game animals."

Ligon, J.S. Wildlife and modern land-use policies in the southwest. Cattleman 25(6):45-48. November 1938.

Saari, Matt. Food for forest folk. Minn.Conserv.69:4-6, illus. June 1939.

"Considering the large numbers of woody plants used as food by our wild life, it is regrettable they are permitted to be destroyed by fire, grazing, erosion and other causes. The author herein discusses some of these foods and their value."

Sericea lespedeza a good quail food. N.C.Wildlife Conserv.111(7):15. July 1939.

Wind Erosion

Hadley, J.N. and Rogers, David. Wind erosion damage checked in Navajo land. Soil Conserv.5(2):42-43. August 1939.

Tanner, W.F. Texas surface soils. Econ.Geol.34:459-460. 1939.

"Wind-blown dune sand contained 1.48% iron oxide. It is suggested that Fe is being leached from surface soils by decaying vegetation and is being concd. in the subsoil."--Michael Fleischer in Chem.Abs. 33(15):5965. Aug.10, 1939.

BOOK AND PAMPHLET NOTES AND ABSTRACTS

American society for horticultural science. Proceedings...for 1938, thirty-fifth annual meeting, Richmond, Virginia, December 28, 29 and 30, 1938. Volume 36. 874pp., illus. Published by the Society, Edited by the Secretary, H.B. Tukey, Geneva, New York, April 1939. 81 Sol2 V.36 1938
Partial contents: Contour planting and terracing as a basis for soil and water conservation in orchards, by J.T. Bregger, pp.7-12; Some results from orchard irrigation in eastern Nebraska, pp.74-76.

Anderson, R.O. Applied photogrammetry. 2d ed. 191pp., illus. Chattanooga, Tennessee, January 1939. 325 An2 Ad.2

Association of land-grant colleges and universities. Proceedings...fifty-second annual convention, Chicago, Illinois, November 14-16, 1938. Edited by William L. Slate for the Executive committee of the Association. 357pp. New Haven, Conn., 1938?; 4As7 52d, 1938

Partial contents: The land-grant colleges and their contribution to American life, by C.W. Creel, pp.24-34; The action programs, the States and the land-grant colleges, by J.M. Gaus, p.108; Should it be the function of the land-grant college to implement all federal programs in agriculture? by R.E. Buchanan, pp.108-118; Who should be responsible in the development of an agricultural planning program? by M.S. Eisenhower, pp.118-122; What should be the balance between crop land and grazing land in the United States? by W.C. Coffey, pp.122-123; Will grass and forage planting to control erosion require readjustments in the live-stock program, by F.F. Elliott, pp.123-126; The relation of the land planning program to the livestock planning program, by F.L. Potter, pp.126-129;

Training for professional service in agriculture, by C.E. Taeusch, pp.130-143; Training for public service in agriculture, by E.C. Johnson, pp.149-150.

Association of southern agricultural workers. Proceedings, abstracts of papers and addresses, of the 40th annual convention...held in New Orleans, La., February 1, 2, 3, 1939. 200pp. [Raleigh, N.C. Capital printing company 1939; 4 C82

Partial contents: The place of engineering in a soil and water conservation program, by V.R. Hillman, pp.47-48; Soil moisture factors, runoff, and erosion from Piedmont soils, by T.C. Peele, and E.E. Latham, p.58; Nitrogen removed by drainage and cropping from lysimeters as affected by kind of vegetative cover, by P.E. Karraker, pp.58-59; The influence of subsoiling and organic matter on eroded Lufkin soils, by D.W. Thorne, p.59; The influence of cropping practices on some physical and chemical properties of soil, by Frank Moser, p.60; Farm forestry from the viewpoint of the Soil Conservation Service, by J.F. Preston, pp.103-104; The Tennessee valley authority's contributions to the problems of farm woodland management, by W.M. Baker, pp.104-105; Problems in connection with county association power unit terracing program and suggested solution, by J.W. Carpenter, p.169; Contract terracing, by J.T. Copeland, pp.170-171; Avenues to proper land use, by E.H. Bennett, p.192; The soil conservation district; its place in southern agriculture, by J.W. Sargent, p.193; Pre-treatment in agronomy and engineering work of the Soil conservation service, by A. Carnes and R.Y. Bailey, p.194; Cooperative AAA, extension and SCS relationship, by S.R. Doughty, pp.194-195.

Ball, C.R. Coordination of agricultural activities. 31pp., mimeogr. Washington, D.C.?; 1939 1.9 Ex891Co

"Literature cited," pp.26-31.

Summarizes references to cooperation appearing in papers of various administrators.

Ball, C.R. A study of the work of the land-grant colleges in the Tennessee valley area in cooperation with the Tennessee valley authority. 84 numb.l., mimeogr. [Washington, D.C.?; October 1938. 275.1 B21

"The material assembled by the Special committee on land-grant college data and the Subcommittee on experiment station data."

Brinser, Ayers. Our use of the land...with the assistance of Ward Shepard. 303pp., illus. New York and London, Harper & brothers, 1939. 282 B762

This book "is an attempt to fill the growing need for a text book presenting conservation as a teachable subject. It explains the functions of society and government and their relation to the land and the people who live on the land. This is a book about the practices of land use and their meaning."

It was prepared for junior and senior high schools.

Bush, G.L., Dickie, Allan and Runkle, R.C. A biology of familiar things. 695pp., illus. New York, American book company, c1939. 442 B96

Biology in the conservation of soil and water, pp.505-553 (Includes reference list).

Cady, R.C. Ground-water resources of northern Virginia. Va. Geol. Survey. Bull. 50. 200pp., illus. University, 1938. 406 V812 no. 50
The area discussed in this report includes Arlington, Fairfax, Prince Williams, Loudoun, Clarke and Frederick counties.

Carnecross, J.W., Waller, A.G. and Messer, Charles. Farm business study of 25 specialized vegetable farms in Monmouth county, New Jersey 1937. Rutgers, Univ. Dept. Agr. Econ. A.E. 11. 11 numb. 1., mimeogr. New Brunswick, March 1939. 281.9 R93 no. 11

"This study was made in cooperation with the Soil Conservation Service and Bureau of Agricultural Economics of the United States Department of Agriculture. About one-half of these farms were cooperating with the Soil Conservation Service in the control of erosion and the maintenance of soil fertility..."

Dannecker, Karl. The forest manager. A handbook for farm woodland owners and others who manage their own woodlands. American edition, translated by Arthur O. Weidelich. 172pp., illus. Washington, D.C., The American Forestry Association, 1939. 99.55 D23F

Great Britain. Colonial office. A review of the position in regard to soil conservation in the colonial empire, 1937. 72 numb. 1., mimeogr. London, 1939. 56.7 G792

This review is composed of either summaries or extracts from the communications received from the following places: Gambia, Gold Coast, Sierra Leone, Northern Rhodesia, Nyasaland, Somaliland Protectorate, Tanganyika, Uganda Protectorate, Zanzibar, Ceylon, Straits Settlements, Singapore, Penang, Malacca, Bahamas, Barbados, British Guiana, British Honduras, Jamaica, Leeward Islands, Antigua, Dominica, Montserrat, St. Kitts-Nevis, Virgin Islands, Windward Islands, Grenada, St. Vincent, Malta, Palestine, Trans-Jordan, British Solomon Islands Protectorate, Gilbert and Ellice Islands Colony, New Hebrides, Tonga, Falkland Island, St. Helena and Buchuanaland Protectorate.

Gustafson, A.F. et al. Conservation in the United States, by members of the faculty of Cornell university, A.F. Gustafson, H. Ries, C.H. Guise and W.J. Hamilton, Jr. 445pp., illus. Cornell Heights, Ithaca, New York, Comstock publishing company, inc., 1939. 279 G97

This volume, which is intended to be a non-technical presentation for the purpose of acquainting students and other interested readers with important facts concerning the conservation of natural resources in the United States, is divided into parts as follows: Part I. Conservation of soil and water resources; Part II. Conservation of forests, parks and grazing lands; Part III. Conservation of wildlife; Part IV. Conservation of mineral resources.

Reviewed in Jour. Forestry 37(8):661-662. August 1939.

Hawaii territorial planning board. First progress report. An historic inventory of the physical, social and economic and industrial resources of the territory of Hawaii... 322p., illus. Honolulu, February 8, 1939. 280.7 H31

Contains information on population, land use, and water resources. Erosion conditions in Hawaii, by N.E. Winters, pp. 81-82.

Holmes, MacDonald. The erosion-pastoral problem of the western division of New South Wales. Sydney Univ. Pubs. in Geog. 2. 52pp., illus. Sydney, 1938. 331.9 Sy2 no.2

Hutchison, C.S. Visual aids in a program of vocational agriculture. 12 numb. l., processed. Columbus, Ohio, Ohio state university, Agricultural education division, 1939. 275.1 H97
Bibliography, leaf 9.

Idaho forester, volume XXI, 1939, published annually by the students of the school of forestry, University of Idaho. 62pp., illus. Moscow, 1939. 99.9 Id1

Partial contents: The place of range management in soil erosion in the western states, by W.R. Chapline, pp. 7-8, 60; The role of range management in erosion control, by R.W. Bailey, pp. 9, 38; The place of range management in erosion control, by H.H. Bennett, pp. 10, 36; Grazing and conservation, by R.H. Rutledge, pp. 11, 45.

Idaho game management conference. First and second Idaho game management conferences held at the university of Idaho, Moscow, December 8-10, 1937 and at University of Idaho, Southern branch, Pocatello, March 18-19, 1938 under the sponsorship of the School of forestry... Idaho Univ. School of forestry. Bul. 8. 98pp. Moscow, December 1938. 412.9 Id13

Partial contents: Soil conservation as related to wildlife management, by C. Svendby, pp. 16-17; The influence of soil conservation practices on upland game birds on Idaho farms, by L.T. Turner and A.B. Hatch, pp. 67-69.

International society of soil science. Transactions of the sixth commission. 603pp., illus. Bern 1938 (1937, volume B) 56.9 In833 v.B

The majority of articles are in French or German. A few are in English.

Partial contents: The transport of soil and salts by running water, by E.G. Richardson, pp. 10-16.

Die grundwasserstandsschwankungen in verbindung mit der frage fortschreitender austrocknung (Fluctuations in ground-water level in relation to the problem of progressive drying out) by W. Koehne, pp. 58-69.

"Seasonal measurements of fluctuations in ground water level from various sources are discussed."

Reduction potentials in drained and undrained soils, by L. Snolik, pp. 105-109.

Beobachtungen an einer versuchsdrainung in Söllheim bei Salzburg. (Observations on a drainage experiment in Sollheim near Salzburg) by J. Donat, pp. 110-119.

"Data for temperature, precipitation, drainage water, soil water suction and change of soil structure and water air content of the soil on draining it."

Irrigation par aspersion en U.S.S.R. (Sprinkling irrigation in the U.S.S.R. by M.C. Petrov, pp. 232-236.

"Outlines methods used in the U.S.S.R."

Supplemental irrigation in the eastern United States of America, by F.E. Staebner, pp. 241-243.

Essais d'irrigation souterraine continue "Système d'Avignon" en culture maraichère (Experiments with continuous subterranean irrigation by the Avignon system in marsh cultivation) by J. Borda, pp. 251-254.

"The method consists in irrigating by means of buried porous pipes. Good

results have been obtained with vegetables."

Essais d'irrigation souterraine discontinue "Système de Cavaillon" (Experiments with discontinuous subterranean irrigation by the Cavaillon system) by G.Mathieu, pp.255-257.

"The porous pipes of the Avignon system are substituted by tiles, and water is distributed ever 6 to 8 days. A large saving in costs is effected."

Arbeiten über die untergrundbewässerung (Work on subterranean irrigation) by H. Janert, pp.260-267.

"Describes the 'tunator' plough, a kind of mole-drain plough which also forms and lays a porous concrete tube as the plough moves forward."

Notes complémentaires sur l'irrigation souterraine (Additional notes on subterranean irrigation) by G.Mathieu, pp.268-270.

"Effect of subterranean irrigation on the salt content and structure of the soil."

Irrigated lands require drainage, by L.T. Jessup, pp.271-274.

Effect of land amelioration measures on the movement of salts in the soil, by C.A. Taylor, pp.275-280.

Effect of rainfall and of substrata upon composition and reaction of the soil waters of Everglades peat land, by J.R. Neller, pp.388-393.

A new laboratory method for measuring the effects of land amelioration processes, by G.W. Blair, pp.417-422.

Das Gefüge des Bodens und dessen Kennzeichnung (The characterization of soil structure) by J. Donat, pp.423-439.

"Description of a laboratory apparatus for determining the percent distribution of pore-space sizes. Typical graphs are given showing the effects of laboratory treatments upon this factor of soil structure."

Signification des résultats obtenus avec les sondes dynamométriques. (Significance of results obtained with penetrometers) by S. Henin, pp.461-467.

Die Durchlüftbarkeit des Bodens (The permeability of soil to air) by H. Janert, pp.468-473.

"Description of measuring apparatus, graph for calibrating it in terms of air-space openings as percentages of cultivable soil surface, and typical graphs of such percentages plotted against dates of cultivation operations."

Ein neuer Volutenbohrer (A new soil borer) by B. Ramsauer, pp.482-485.

"A set of apparatus is described which is claimed to avoid compression and distortion of small samples of soil."

Mechanical analysis of some United Provinces soils by Puri's hydrometer method, by B.K. Mukerji and A.N. Misra, pp.486-488.

Jacks, G.V. and Whyte, R.O. Vanishing lands. A world survey of soil erosion. 332pp., illus. New York, Doubleday, Doran & company, inc., 1939. 56.7 J13V

This is the American edition of "The Rape of the Earth" by the same authors.

It tells how far erosion has gone in various parts of the world and why it has not been checked; cites political and economic trends that have influenced erosion in the past and shows how mistakes can be corrected. Measures being taken in Japan, Russia the United States and elsewhere are described. The authors hold out some hope for civilization in North America, but take a more gloomy view of Europe which because of constant wars cannot carry out a long-time soil conservation policy.

Jornadas agronomicas y veterinarias 1937. 413pp. Buenos Aires, 1938.

9 J82 1937

In Spanish.

Partial contents: Primera contribucion al estudio hidrologico de los suelos de nuestras zonas de regadio (First contribution to the hydrological study of the soils of our irrigation zones) by M. Conti, pp. 249-263.

"A study was made of the imbibition of capacity of the soils and of the rapidity of filtration, the last with a view to determining the permeability index of the soil. The total amounts of soluble salts were also determined. The soils were divided into three groups according to their permeability indices." --Abs. Soils & Fert. 2(3):115. 1939.

Plantas psammofilas indigenas que pueden ser cultivadas para consolidar dunas (Indigenous psammophytes which may be cultivated for the consolidation of dunes) by L.R. Parodi, pp. 311-321.

"The author has studied the Argentine sand dune vegetation in situ and also in the botanic garden of the Faculty of Agricultural Botany, Buenos Aires (in plots simulating sand dune conditions) and at the Dune Nursery, Mirimar, in comparison with introduced exotic psammophytes. Two lists enumerate (1) the native species of most importance as sand-binders, and (2) those which may be grown in association with the former. The first list comprises the grasses Sporobolus rigens, Panicum racemosum, P. Urivalleanum, Spartina ciliata, Poa (Dioicopoa) Barrosiana and Poa (Dioicopoa) lanuginosa, and in addition Plazia argentea (belonging to the Compositae) and the legume Adesmia incana. Brief botanical descriptions and notes on distribution and cultivation are appended in each case. The second list names thirty-one species and includes many grasses and the legume Trifolium polymorfum (creeping), Lathyrus tomentosus (caespitose) and Lupinus multiflorus (an annual). The last-named species would be of great value in improving sandy soils, always poor in nitrogen and organic matter. Further trial may necessitate the transference of some of the second list species to the first list of more important species." --- G.M.R. in Herbage Abs. 9(1):67. March 1939.

Khanna, R.K. Fundamentals of river and canal hydraulics. 15pp., illus. [Lahore, Rama Krishna & sons, 1939?] 290 K52F

Lehmann, V.W. Fenced areas for bobwhites. Tex. Game, Fish and Oyster Comm. Bul. 12. 3pp., illus. Austin, June 1938. 412.9 T31E no. 12

[New Jersey] state soil conservation committee. Bulletins 4, 5, 6. 3 nos. New Brunswick, 1939. 56.9 N46

Bul. 4. Trees and shrubs as soil savers.

Bul. 5. Soil saving on general dairy farms in New Jersey.

Bul. 6. Proceedings of the Roadside erosion institute, College Farm, New Brunswick, February 8, 1939.

Contents: Highway erosion control, by H.J. Neale, pp. 4-7; Erosion problems on primary roads in New Jersey, by F.L. Gerard, pp. 8-12; Erosion damage as it affects county highways in southern New Jersey, by L.F. Wagner, pp. 13-17; Erosion damage as it affects our highways in North Jersey, by F.W. Bohren, pp. 18-20; How the soil conservation service can help, by A.M. Davis (illustrated lecture) p. 21; Slope and ditch design in relation to highway erosion control by C.A. Frye, pp. 22-29; Specific problems in New Jersey, by R.E. Underwood (illustrated lecture) p. 30; Plant materials for erosion control on roadsides, by Ben Blackburn, p. 31.

New Zealand committee of inquiry; Maintenance of vegetative cover in New Zealand, with special reference to land erosion (Report...) New Zeal. Dept. Sci. and Indus. Res. Bul. 77. 51pp., illus. Wellington, 1939. 330.9 N48B no. 77

Nyasaland protectorate. Report of the agricultural survey of the five most northerly districts of Nyasaland. 103pp., illus. Zomba, Printed and published by the government printer, 1938. 24 N982
Part 16. Denudation and soil erosion in northern Nyasaland; by A. J. W. Hornby.

Porter, C. L. Studies in Wyoming grasses. Wyo. Univ. Pubs. 6(3):39-45, tables. Feb. 15, 1939. 500 M99

This is the first of a projected series of papers, designed to meet the need of field workers for a treatment of Wyoming grasses which would enable any one with a little experience and training to arrive at a name for specimens encountered in the field on range surveys and like projects.

Pretoria university. Faculty of agriculture. Grassland research committee. Progress report on soil erosion and grassland experiments... 1938. 60pp. Pretoria, 1938. 276.4 T68

Roberts, E. A. and Reynolds, H. W. The role of plant life in the history of Dutchess county. 44pp., illus. Poughkeepsie, N. Y., Dutchess county planning board?; 1938. 455.34 R54R
Bibliography, pp. 43-44.

Russell, E. J. Report on the work of the Imperial council of agricultural research in applying science to crop production in India. 235pp., illus. Delhi, Manager of Publications, 1937. 34.2 R91
Prevention of soil erosion, pp. 54-57.

Shively, S. B. and Weaver, J. E. Amount of underground plant materials in different grassland climates. Nebr. Univ. Conserv. and Survey Div. Bul. 21. 68pp., illus. Lincoln, May 1939. 99.47 N27 no. 21
Bibliography, pp. 67-68.

"The present investigation is a reconnaissance of a wide prairie region, from moist true prairie, through mixed prairie, well into the disclimax of the Great Plains. It thus includes several grassland subclimates. The purpose was to determine the correlation, if any, between amounts of underground plant materials and an increase in aridity. All samples, unless otherwise indicated, were collected during 1935 and 1936."

South Africa. Department of agriculture and forestry. Handbook for farmers in South Africa. 3d and enl. ed., 1220pp., illus. Pretoria, Government printer, 1939?; 35.3 S683 Ed. 3
The problem of soil erosion, p. 634.
101 practical hints on soil erosion, pp. 635-640.
Reclamation of the veld, pp. 640-659.
Taking levels for contour banks and furrows, pp. 659-666.

Southwest soil and water conservation conference. Papers presented at ninth...conference held at College Station, Texas, July 1 and 2, 1938. 63 numb.1., mimeogr. (n.p., 1939?); 56.9 So82 9th

Partial contents: Research needs in water conservation in Arkansas, by C.O. Brannen, leaves 3-5; Research needs in water conservation, by A.B. Conner, leaves 6-7; What the extension service can do in soil and water conservation, by C. Hohn, leaves 8-9; The program of research work in soil and water conservation, Temple, Texas, by C.H. McDowell, leaves 10-14; Progress of research work at Spur, Texas, by R.E. Dickson, leaves 15-17; The progress of research that is being done in Arkansas, by R.P. Bartholomew, leaves 18-21; Climatic conditions and suggested cropping system for northwestern Oklahoma, by H.A. Daniel, leaves 22-23; Water conservation as related to land classification, by H.H. Finnell, leaves 24-26; The land and flood control, by A.L. Patrick, leaves 27-32; The status of our natural resources, by E.J. Kyle, leaves 33-36; The district soil conservation program and its progress in Oklahoma, by E.K. Lowe, leaves 37-38; Results obtained by Soil Conservation Service in water control in region 7, by A.E. Jones, leaves 39-42; Results obtained by the Soil Conservation Service in water control in region 4, by L.P. Merrill, leaves 43-50; Relation of forest cover to water conservation, by F.O. Siecke, leaves 51-53; The part wildlife conservation should play in a water utilization program in the southwest, by C.E. Sanborn, leaves 54-59.

Texas agricultural workers' association. Papers presented at meeting...Fort Worth, Texas, January 13-14, 1939. 166 numb.1., mimeogr. (n.p., n.d.) 4 T314 1939

Partial contents: The woman's part in soil conservation, by H.M. Strong, leaves 15-19; Soil conservation and the permanent home, by H.M. Strong, leaves 89-92; The water facilities program in Texas, by V.R. Smitham, leaves 141-144; Educational work in soil and water conservation, by C. Hohn, leaves 148-152; Forestry in the field of conservation, by F.O. Siecke, leaves 153-158; Facilitating soil and water conservation, by J.W. Sargent, leaves 159-163.

Texas almanac and state industrial guide, 1939-40. 512pp., illus. Dallas, Published by the Dallas Morning News, 1939; 252.83 T31
Soil and water resources of Texas, pp. 125-146.

Texas Game, fish and oyster commission. A short list of wildlife publications with special regard to Texas. Tex. Game, Fish and Oyster Comm. Bul. 14. 30pp. Austin, October 1938. 412.9 T31B no. 14

Tyler, R.G. Water resources of Washington. Wash. State Univ. Engin. Expt. Sta. Rpt. 4. 61pp., illus. Seattle, June 1938. 290.9 W27R no. 4

Underhill, A.H. Acidity variations in New Hampshire fresh waters. N.H. Forestry and recreation dept. Caroline A. Fox research and demonstration forest, Hillsboro. Bul. 4. 9 numb.1., illus., processed. Concord?, N.H. State planning and development commission, 1939. 99.9 N454 no. 4

"It is believed that Mr. Underhill's findings will prove of interest and value to those interested in improving streams for fishing purposes and to persons contemplating the building of dams or the flooding of land for any purpose."

Watson, S.J. The science and practice of conservation: grass and forage crops...with a foreword by Professor J.A.S. Watson of the agricultural research council's Committee on the preservation of grass and other fodder crops. 415pp., illus. [London, 1939?] 60 W33 v.1

This work is to be issued in two volumes. Only volume 1 is now available.

"The aim of this book, in the first place, was to present a detailed and consecutive account of the researches into the conservation of fodder crops which have taken place at Jealott's Hill. It was thought, however, that it would be an advantage to enlarge the scope considerably and attempt to present, in fair detail, the work which has been carried out on the conservation of forage crops and crop residues in all parts of the world. The main scheme was adhered to and each section is, wherever possible, built around the work carried out at Jealott's Hill and has then been enlarged to cover the literature, presenting all relevant data." -- From author's preface.

Woodward, H.P. Outline of the geology and mineral resources of Russell county, Virginia. Va. Geol. Survey. Bull. 49. 91pp., illus. University, 1938. 406 V812 no. 49

STATE EXPERIMENT STATION AND EXTENSION PUBLICATIONS

Arkansas

Hall, O.J. Proper land use eliminates "submarginal" land. Ark. Agr. Col. Ext. Circ. 410. 12pp., illus. Little Rock, June 1938. 275.29 Ar4 no. 410

Reid, J.W. Geographic distribution of Arkansas crops and livestock. Ark. Agr. Expt. Sta. Bul. 367. 36pp., illus., maps. Fayetteville, November 1938. 100 Ar42 b, no. 367

California

Gordon, Aaron and Sampson, A.W. Composition of common California foothill plants as a factor in range management. Calif. Agr. Expt. Sta. Bul. 627. 95pp., illus. Berkeley, March 1939. 100 C12S b, no. 627

Connecticut

Morgan, M.F. The soil characteristics of Connecticut land types. Conn. Agr. Expt. Sta. Bul. 423. 64pp., maps. New Haven, May 1939. 100 C76St b, no. 423

Hawaii

Whitney, L.D., Hosaka, T.Y. and Ripperton, J.C. Grasses of the Hawaiian ranges. Hawaii Agr. Expt. Sta. Bul. 82. 148pp., illus. Honolulu, May 1939. 1 Ex63H no. 82

Illinois

Garrigus, W.P. and Rusk, H.P. Some effects of the species and stage of maturity of plants on the forage consumption of grazing steers of various weights. Ill. Agr. Expt. Sta. Bul. 454. 508pp., illus. Urbana, April 1939. 100 Il6S; bino. 454

Illinois. Soil erosion advisory committee. Problems in erosion control research for Illinois. 42 numb. l., maps., mimeogr. Urbana, 1938. 56.7 Il6

Prepared by the Soil erosion research advisory committee of the Illinois agricultural experiment station and Extension service in collaboration with representatives of the Divisions of Research and Operations, Soil Conservation Service.

Lehmann, E.W. and Pitzen, T.A. Farm drainage: its maintenance and construction. Ill. Agr. Expt. Sta. Circ. 493. 40pp., illus. Urbana. 100 Il6S3; cino. 493

Sears, O.H. Soybeans: their effect on soil productivity. Ill. Agr. Expt. Sta. Bul. 456. 571pp., illus. Urbana, June 1939. 100 Il6S; bino. 456

"In this bulletin the effect of soybeans on the soil is discussed from the standpoint of the use to which the crop is put - whether for hay to be fed on the farm, hay to be sold, grain to be sold and the straw returned to the land, or for green manure. The effect of soybeans, used in these ways, on soil tilth and tendency toward erosion, on the activity of soil bacteria, on plant-food balance in the soil, and on the other crops in rotation are presented."

Iowa

Bunce, A.C. The farmer looks at soil conservation in southern Iowa. Iowa Agr. Expt. Sta. Bul. 381. 163pp., illus. Ames, June 1939. 100 Io9; bino. 381

Presents the results of a survey of Iowa farmers in 1937 in order to obtain information on the following questions:

1. What do farmers at present cooperating with the soil conservation program think of it and of specific elements in it?

2. How serious is erosion in these areas where soil conservation has been introduced compared to the area under consideration?

3. What does soil conservation involve in changed cropping systems and farming practices, and what have farmers agreed to do on their farms in cooperation with the Soil Conservation Service?

4. What has been the effect of these changes upon the livestock system?

5. Finally, how can it be determined whether it will really pay to adopt certain changes in land use and farming practices on the individual farm?

Iowa state college of agriculture and mechanic arts. Extension service. Plan to use your soil and keep it too. 90 pamphlets in 1 v. Ames? Iowa 193-?, 275.2 Io92Pla

Suggestions made by various county farmers of Iowa, members of the County agricultural planning committees.

In cooperation with the U.S. Department of agriculture.

Kentucky

Nicholls, W.D. and Rouse, W.L. Farm organization and family incomes in Knott county, Kentucky. Ky. Agr. Expt. Sta. Bul. 351. 184pp., tables. Lexington, July 1934. 100 K41 b; no. 351

"The object of this study was to procure a complete and accurate picture of conditions in agriculture, forestry, home and community life, standards of living, local industries and other factors needed as the basis for a long-time program for bettering conditions in the area."

Maryland

Coddington, J.W. and Derr, D.E. An economic study of land utilization in the tobacco area of southern Maryland. Md. Agr. Expt. Sta. Bul. 424. 218pp., illus. College Park, January 1939. 100 M36S, b; no. 424

This study which relates to the year 1935 includes an examination in detail of a group of representative farms as a basis for analyzing farm practices in terms of soil conservation.

Minnesota

Miller, D.G. Effect of drainage on water levels of farm wells in Upper Miss. Valley. Minn. Univ. Agr. Ext. Div. Agr. Engin. News Letter 87, tables. June 15, 1939. 275.29 M66Ag no. 87

Mississippi

Miles, I.E. and Gross, E.E. A compilation of information on kudzu. Miss. Agr. Expt. Sta. Bul. 326. 14pp., illus. State College, January 1939. 100 M69 b; no. 326

Missouri

Klemme, A.W. and Coleman, O.T. Evaluating annual changes in soil productivity. Mo. Agr. Expt. Sta. Bul. 405. 32pp., illus. Columbia, June 1939. 100 M693 b no. 405

"A method for evaluating in approximate terms the annual fertility and erosion losses from soils under the main crop and cropping systems used in Missouri has been developed from data taken from the experiments of the Department of Soils of the Missouri Agricultural Experiment Station and from various other sources.

"Through the use of this method, farmers and other agricultural workers can plan cropping systems more effectively, provide the necessary soil treatments, and give thought to the soil conservation measures which offset the fertility and erosion losses brought about by crop removal, leaching and erosion."

Nebraska

Duley, F.L. and Kelly, L.L. Effect of soil type, slope, and surface conditions on intake of water. Nebr. Agr. Expt. Sta. Res. Bul. 112. 16pp., illus. Lincoln, May 1939. 100 N27; r; no. 112

Water was applied with a sprinkling apparatus similar to that

developed by the SCS personnel for the Colorado Springs, Colorado, project.

"From the limited amount of information available on this subject at the present time, protecting the surface either by crops or crop residues would seem to be a more effective method of insuring a high intake of water than any system of cultivation which leaves the bare soil surface exposed a large part of the time."

The results discussed were obtained in eastern Nebraska.

Rhoades, H.F. Effect of organic matter decomposition on the solubility and fixation of phosphorus in alkaline soils. Nebr. Agr. Expt. Sta. Res. Bul. 113. 23pp., tables. Lincoln, June 1939. 100 N27, r. no. 113

Nevada

Hardman, George, Venstrom, Cruz and Mason, H.G. Irrigated lands of the Humboldt river area, Nevada. Nev. Agr. Expt. Sta. Irrigation Bul. 1. 36 numb. 1., mimeogr. Carson City, May 1939. 100 N415 no. 1

New York

LaMont, T.E. State reforestation in two New York counties; the story of the land and the people. N.Y. (Cornell) Agr. Expt. Sta. Bul. 712. 23pp., illus. Ithaca, February 1939. 100 N48C no. 712

"A question frequently asked is, 'What happens to the persons on land sold to the State for reforestation and recreation?' To help answer this question, the New York State College of Agriculture made a study of those persons who had sold land to the State in Chenango and Madison counties. In these counties there were, in June, 1935, 39 reforestation areas and the Pharsalia Game Refuge. The results of this study are reported in this bulletin."

South Dakota

Penn, P.J. and Loomer, C.W. County land management in northwestern South Dakota. S. Dak. Agr. Expt. Sta. Bul. 326. 51pp., tables. Brookings, September 1938.

"This study of county land policies treats the methods and results of current practice in acquiring, leasing, and selling county land, and summarizes state legislation which has application in these respects. The major emphasis of the report is upon lease procedure, as the writers are of the opinion that the present needs of local government are best served by an improved leasing program by which county lands can be put to immediate use. Although the most important objective from the viewpoint of county governments is income, it should not be overlooked that an adequate leasing policy benefits the private operator as well, assuring him of stability of tenure and encouraging correct land use practices."

Tennessee

Leubke, B.H., Atkins, S.W., Allred, C.E., and Roth, W.J. Types of farming in Tennessee. Tenn. Agr. Expt. Sta. Bul. 169. 94pp., illus. Knoxville, April 1939. 100 T25A, b. no. 169

Martin, G.F. and Gowder, M.T. Terrace project planning and vegetative cover recommendations for farm runoff disposal systems. Tenn. Agr. Col. Spec. Circ. 93. 7 num. bl., illus. Knoxville, February 1939. 275.29 T25S

Vermont

Dunklee, D.F. and Midgley, A.R. The effect of 1936 flood deposits on Vermont farm lands. Vt. Agr. Expt. Sta. Bull. 445. 16pp., illus. Burlington, March 1939. 100 V59, b, no. 445

West Virginia

Weitzell, E.C. Certain economic aspects of agriculture in the Jackson county soil-conservation area. West Va. Agr. Expt. Sta. Bul. 291. 56pp., illus. Morgantown, July 1939. 100 W52, b, no. 291

West Virginia University. College of agriculture, Extension dept. Soil and water conservation project, arranged by Walter C. Gumbel... 26pp., mimeogr. Morgantown, [1939?]. 275.2 W52 So
"References to soil and water conservation," p. 26.

"This project in soil and water conservation is offered to the rural youth of West Virginia. It presents and suggests during the first year numerous problems that occur and must be met in connection with the conservation movement... The first-year project... carries the rank of Junior Conservation Ranger."

Project requirements and proposed grading are indicated on p. 2.

U.S. GOVERNMENT PUBLICATIONS

Agriculture Department

Alexander, L.T., Byers, H.G. and Edington, Glen. A chemical study of some soils derived from limestone. U.S. Dept. Agr. Tech. Bul. 678. 28pp., tables. Washington, U.S. Govt. print. off., June 1939. 1 Ag84T no. 678

Canfield, R.H. The effect of intensity and frequency of clipping on density and yield of black grama and tobosa grass. U.S. Dept. Agr. Tech. Bul. 681. 32pp., illus. Washington, U.S. Govt. print. off., May 1939. 1 Ag84T no. 681

"Literature cited," pp. 31-32.

Cole, J.S. and Mathews, O.R. Subsoil moisture under semiarid conditions. U.S. Dept. Agr. Tech. Bul. 637. 70pp., illus. Washington, U.S. Govt. print. off., April 1939. 1 Ag84T no. 637

"The purpose of this bulletin is to present soil-moisture data selected solely for their bearing on the hydrologic question of sub-soil water."

Extent of infiltration of water to the water table, pp. 68-70.

Costello, D.F. Weather and plant-development data as determinants of grazing periods on mountain range. U.S. Dept. Agr. Tech. Bul. 686. 31pp., illus. Washington, U.S. Govt. print. off., May 1939. 1 Ag84T no. 686

- Day, A.M. The wildlife restoration program under the Pittman-Robertson act of 1937. U.S. Dept. Agr. Misc. Pub. 350. 11pp. Washington, U.S. Govt. print. off., May 1939. 1 Ag84M no. 350
- Gray, L.C. Evolution of the land program of the United States department of agriculture. 17pp., processed. Washington, D.C., U.S. Bureau of agricultural economics, 1939. 1 Ec7Gra
An address before the Bureau of agricultural economics conference on agricultural planning, March 22, 1939.
- Hollowell, E.A. Strawberry clover. U.S. Dept. Agr. Leaflet 176. 8pp., illus. Washington, U.S. Govt. print. off., July 1939. 1 Ag84L no. 176
Descriptive information regarding a clover which "promises to play an important role in the reclamation of seeped, saline and alkaline soils, now considered waste lands in the western states".
- Jensen, H.A. Vegetation types and forest conditions of the Santa Cruz mountains unit of California. U.S. Forest and Range Expt. Sta. Forest Survey Release no. 1 55 numb. 1, mimeogr., illus. Berkeley, May 1, 1939. 1.9 F7626F no. 1
- Olcott, M.T., comp. Rural psychology. A partial list of references. U.S. Bur. Agr. Econ. Agr. Econ. Bib. 78. 81 numb. 1., mimeogr. Washington, D.C., March 1939. 1.9 Ec73A no. 78
Topical headings include the following: Attitudes toward government and politics; Attitudes toward relief; Family and community life; Farm labor.
- Salmon, S.C. and Taylor, J.W. Growing wheat in the eastern United States. U.S. Dept. Agr. Farmers' Bul. 1817. 59pp., illus. Washington, U.S. Govt. print. off., May 1939. 1 Ag84F no. 1817
Wheat serves as an important cover crop to prevent soil erosion and leaching in the late fall, winter and early spring, when the land would otherwise be bare.
- Scobey, F.C. Flow of water in irrigation and similar canals. U.S. Dept. Agr. Tech. Bul. 652. 79pp., illus. Washington, U.S. Govt. print. off., February 1939. 1 Ag84T no. 652
"Literature cited," pp. 75-78.
This bulletin "is based on field tests made to determine the retardation factors in several formulas applicable to the various conditions found in practice. It is offered for use by engineers in designing, measuring, and operating irrigation, power, municipal and similar canals, and for courts and attorneys at law interested in cases involving the carrying capacities of open artificial canals".
- Stewart, George. Reseeding range lands of the intermountain region. U.S. Dept. Agr. Farmers' Bul. 1823. 25pp., illus. Washington, U.S. Govt. print. off., July 1939. 1 Ag84F no. 1823.
Suggests procedures for reseeding deteriorated range lands in the region comprising Utah, Nevada, southern Idaho and southwestern Wyoming.

- U.S.Dept.of agriculture. Planning for a permanent agriculture,including a summary of the programs administered by the Department of agriculture that influence the use of the land. U.S.Dept.Agr.Misc.Pub. 351. 71pp. Washington, U.S.Govt.print.off., June 1939. 1 Ag84M no.351
Prepared for community and county land use program planning committees.
- U.S.Extension service. A radio handbook,by John Baker. 15 numb.1., mimeogr. Washington,D.C.?, January 1939. 1.9 Ex891Ra
- U.S.Extension service. Report of the twentieth conference of the Regional advisory committee on land use practices in the southern great plains area,Amarillo,Texas, April 21-22,1939. 25,14 numb.1., mimeogr. n.p.,1939?; 1.9 Ex892Rac,20th,1939
- U.S.Forest service. Forest conservation.A series of units for high schools,by W.P.Beard,education specialist. 147pp.,mimeogr. Washington,D.C.; 1938. 1.9 F76Fco
Bibliographies at end of each unit.
- U.S.Forest service,Southern region,Atlanta,Ga. Forestry in relation to agriculture.Papers delivered before the forestry section of the Association of southern agricultural workers,New Orleans,Louisiana, February 1,2 and 3,1939. 38pp.,mimeogr. Atlanta,Ga. 1.9 F7669Fo
Partial contents:Selling the practice of forestry to the farmers by Brooks Toler,pp.19-22;How a state forest service can contribute to the problem of getting the farm woodlands properly managed,by H.A.Smith,pp.22-27;Farm forestry from the viewpoint of the Soil conservation service,by J.F.Preston,pp.27-34;The Tennessee valley authority's contribution to the problems of farm woodland management, by W.M.Baker,pp.35-38.

Soil Conservation Service

- Barnes,F.F.and Brown,C.B. Advance report on the sedimentation survey of Greenbelt lake,Greenbelt,Maryland,January 27 - February 8,1938. U.S.Soil Conserv.Serv.Div.Research.Sedimentation Studies SCS-SS-33. 12 numb.1.,illus.,mimeogr. Washington,D.C.,April 1939. 1.96 R31RSS-33
- Brown,C.B.and Barnes,F.F. Selected annotated bibliography on sedimentation as related to soil conservation and flood control. U.S.Soil Conserv.Serv.Sedimentation Div.SCS-MP-20. 40 numb.1.,mimeogr. Washington,D.C.,June 1939. 1.96 Ad6Mp no.20
- Campbell,J.P. The coordination of extension and soil conservation service programs in soil conservation districts. 24 numb.1.,mimeogr. Washington,D.C.,U.S.Soil conservation service,1939. 1.96 R27
Address at State extension conference in New Mexico,January 26,1939.
- Dorroh,J.H.,jr. Terracing of cultivated lands.Recommended practices as determined by evaluation surveys in consultation with interested technical sections. U.S.Soil Conserv.Serv.Southwest Region.Regional Bul.56.Evaluation Survey Ser.1. 10 numb.1.,mimeogr. Albuquerque, N.M.,April 24,1939. 1.9608 R26 no.56

- Goodding, L.N. Native legumes in region 8. U.S. Soil Conserv. Serv. Southwest Region. Regional Bul. 55. Plant Study Ser. 1. 47 numb. 1., mimeogr. Albuquerque, N.M., April 15, 1939. 1.9608 R26 no. 55
- Hamilton, C.L. Terrace outlets and farm drainageways. U.S. Dept. Agr. Farmers' Bul. 1814. 46pp., illus. Washington, U.S. Govt. print. off., July 1939. 1Ag84F no. 1814
- Herrman, D.T. We conduct a tour. U.S. Soil Conserv. Serv. Ohio Valley Region. Regional Circ. 156. 2 numb. 1., mimeogr. Dayton, Ohio, July 29, 1939. 1.9603 R26 no. 156
Helpful suggestions for planning and executing successful tours based on observations.
- Moore, M.L. and Hodge, F.J. Wind erosion control in Michigan. U.S. Soil Conserv. Serv. Reg. 3. Circ. 151, 2 numb. 1. Dayton, Ohio, Jan. 7, 1939. 1.9603 R26
- Potter, W.D. and Blank, H.R. Black lands experimental watershed ground water graphs 1936-37. U.S. Soil Conserv. Serv. Div. Res. Section of Watershed and Hydrologic Studies SCS-TP-24. 22 numb. 1., illus., mimeogr. Washington, D.C., May 1939. 1.96 R31B
- Ramser, C.E. The flow of water in the main diversion floodway of the Little River drainage district in southeast Missouri. U.S. Soil Conserv. Serv. Div. Res. Section of Watershed and Hydrologic Studies. SCS-TP-22. 10 numb. 1., illus., mimeogr. Washington, D.C., April 1939. 1.96 R31F
"This article was prepared by Mr. Ramser in 1924."
"Although the use of the floodway as a means of flood prevention is quite common, little information is available regarding their design upon which engineers can rely. These investigations were made primarily for the purpose of obtaining data on the value of the roughness coefficient "n" in Kutter's formula for cleared and uncleared floodways and other data which should be of value to the engineer in studies of the hydraulics of floodways." -- Introd.
- Rowalt, E.M. Soil defense of range and farm lands in the southwest. U.S. Dept. Agr. Misc. Pub. 338. 51pp., illus. Washington, U.S. Govt. print. off., 1939. 1Ag84M no. 338
- U.S. Soil conservation service. Contour planting and terracing as a basis for soil and water conservation in orchards, by John T. Bregger... An address delivered before the 35th annual session of the American society for horticultural science, Richmond, Virginia, December 26, 1938. 12 numb. 1., mimeogr. Washington, D.C., 1939? 1.96 Ad61m no. 3444
- U.S. Soil conservation service. Land utilization program project location maps. maps. Washington, D.C., 1939? 1.96 L221
- U.S. Soil conservation service. An outline of the water facilities program. unnumb., illus. Washington, U.S. Govt. print. off., 1939? 1.6 So30

U.S. Soil conservation service. Division of conservation operations.

A study of some of the older strip cropping in Ohio, Pennsylvania and West Virginia. 26 numb.l., mimeogr. Washington, D.C., January 1939. (SCS-TP-20) 1.96 Op2St

By H.H. Morse and H.B. Alger.

U.S. Soil conservation service. Division of cooperative relations and planning. Section of information. Conservation of the soil. A unit for elementary schools developed by the Fairbrother-Rossell school, Washington, D.C. in cooperation with the Soil conservation service, United States Department of agriculture. v.p., mimeogr. Washington, D.C., March 1939. 1.96 R27Co

Appendix I. Using and saving, a magazine on conservation written by the children of grades 1 through 6; Appendix IV. Save the soil in our neighborhood.

U.S. Soil conservation service. Division of watershed and conservation surveys. Erosion and related land use conditions on the Muskingum river watershed. 36pp., illus., 4 maps, fold. in pocket. Washington, U.S. Govt. print. off., 1939. 1.6 So31Mu

By H. Howe Morse.

U.S. Soil conservation service. Division of watershed and conservation surveys. Erosion and related land use conditions on the Scantic river watershed, Connecticut - Massachusetts. 27pp., 18 sheets, illus. Washington, U.S. Govt. print. off., 1939. 1.6 So31S

By P.H. Montgomery.

U.S. Soil conservation service. Division of watershed and conservation surveys. Erosion and related conditions on the watershed of White Rock reservoir near Dallas, Texas. 29pp., 16 sheets, illus. Washington, U.S. Govt. print. off., 1939. 1.6 So31W

By Richard M. Marshall and Carl B. Brown.

U.S. Soil conservation service, Ohio valley region, Dayton, Ohio. A tentative key to Kentucky soils, by W.S. Ligon. 28 numb.l., mimeogr. Dayton, 1939?; 1.9603 T26

U.S. Soil conservation service. Pacific southwest region, Berkeley, Calif. Yesterday, today and tomorrow in a California valley. 6pp., mimeogr. Berkeley, Calif., 1939?; 1.9610 Y4

By Ralph W. Netterstrom.

"This paper is an effort to make clear to the students of junior and senior high schools the interrelations of conservation problems and what steps are being taken to solve them."

U.S. Soil conservation service. Southern Great Plains region, Amarillo, Tex. Relations of wind erosion to vegetative cover as indicated by engineering measurements on the Dalhart, Texas project. 13 numb.l., mimeogr. Amarillo, 1939; 1.9606 R27

"Field work by Albert R. Coldwell and Fred S. Reynolds."

U.S. Soil conservation service. Southern Great Plains region, Amarillo, Tex. Wildlife management principles prepared for Soil conservation service technicians in region 6, Philip E. Allen Regional biologist. 12 numb.l., illus., mimeogr. Amarillo, July 29, 1938. 1.9606 W64

U.S. Soil conservation service. Southwest region, Albuquerque, N.M.

Bibliography of literature pertaining to soils and closely related subjects. U.S. Soil Conserv. Serv. Southwest Region, Regional Bul. 52. Soil Ser. 5. 7 numb. 1., mimeogr. Albuquerque, Dec. 7, 1938. 1.9608 R26 no. 52

"The purpose of this bulletin is not to give a complete list of published information pertaining to soils and closely related subjects or to recommend or disapprove particular publications. The intention is rather to present a reference list from which suitable publications may be selected for study or reference... The list merely represents the combined suggestions of members of the Soils section in Region 8."

U.S. Soil conservation service. Southwest region, Albuquerque, N.M. Notes on native and exotic plants in region 8, with special reference to their value in the soil conservation program. 152 numb. 1., mimeogr. Albuquerque, Oct. 15, 1938. 1.9608 N841

By Leslie N. Goodding.

U.S. Soil conservation service, Southwest region, Albuquerque, N.M.

Report on surveys, examinations, and investigations made near San Marcial, New Mexico during 1936, 1937 and 1938. 272 numb. 1., illus., typed. Albuquerque? 1939. 1.9608 R293

By Herbert W. Yeo.

"This report represents the accumulation of factual data together with many photographs dealing with the unusual damage from siltation which was especially pronounced during the year 1937."

U.S. Soil conservation service. Upper Mississippi valley region, Des Moines, Ia. Planning and conducting meetings and tours. 11 numb. 1., mimeogr. Des Moines, January 1939.

Prepared by the Section of Information.

U.S. Soil conservation service, Upper Mississippi valley region, Des Moines, Ia. Projects in soil and water conservation. Wildlife management. v.p., mimeogr. Des Moines? Nov. 1, 1938. 1.9605 P943

Presents educational outlines on wildlife.

U.S. Soil conservation service, Upper Mississippi valley region, Milwaukee, Wisc. A study of farming in the Gilmore creek soil conservation demonstration area, Winona county, Minnesota, Some implications of the recommended soil and water conservation program. 51 numb. 1., mimeogr. Milwaukee? June 1939.

By C. Herman Welch, jr. and Hyalmer O. Anderson.

Includes a description of the Gilmore creek watershed, the farms studied in the watershed, the soil conservation program and the effect of the program.

SOIL SURVEYS

Alabama. Soil survey of Hale county. Series 1935, no. 4. February 1939.

- Georgia. Soil survey of Decatur county. Series 1933,no.24.
March 1939.
- Michigan. Soil survey of Mason county. Series 1936,no.1. April 1939.
- New York. Soil survey of Orleans county. Series 1932,no.34. March
1939.
- Oklahoma. Soil survey of Alfalfa county. Series 1933,no.23. Feb-
ruary 1939.
- Pennsylvania. Soil survey of Armstrong county. Series 1932,no.35.
March 1939.
- Rhode Island. Soil survey of Kent and Washington counties. Series
1934,no.9. February 1939.
- Texas. Soil survey of Hunt county. Series 1934,no.14. February
1939.
- Wyoming. Soil survey of Johnson county. Series 1933,no.28. April
1939.
- Wyoming. Soil survey of Sheridan county. Series 1932,no.33.
February 1939.

Geological Survey

- Dalrymple, Tate and other. Floods in the Canadian and Pecos river
basins of New Mexico, May and June 1937, with summary of flood dis-
charge in New Mexico. U.S. Geol. Survey. Water-Supply Paper 842.
68pp., illus. Washington, U.S. Govt. print. off., 1939. 407 G29W no. 842
- Harrell, M.A. and Eckel, E.B. Ground-water resources of the Holbrook
region, Arizona. U.S. Geol. Survey. Water-Supply Paper 836-B. 105pp.,
illus. Washington, U.S. Govt. print. off., 1939. 407 G29W no. 836-B
- U.S. Geological survey. Surface water supply of the United States
1937. Part 2. South Atlantic slope and eastern Gulf of Mexico basins.
U.S. Geol. Survey. Water-Supply Paper 822. 266pp., illus. Washington,
U.S. Govt. print. off., 1938 407 G29W no. 822
- U.S. Geological survey. Surface water supply of the United States 1937.
Part 3, Ohio river basin. U.S. Geol. Survey. Water-Supply Paper 823.
375pp., illus. Washington, U.S. Govt. print. off., 1939. 407 G29W no. 823

Miscellaneous

- Ross, W.A. and Mattoon, W.R. Farm forestry. Timber farming including
woods management and forest tree planting. U.S. Off. Educ. Voc. Educ.
Bul. 196. 63pp., illus. Washington, U.S. Govt. print. off., 1939.
173 V85B no. 196
Supersedes Bulletin 169 of June 1933.
References on farm forestry, pp. 61-62.
"The material included in this bulletin has been prepared to provide

teachers of vocational agriculture with reliable subject-matter, organized in usable teaching form..."

U.S.Civilian conservation corps. CCC foremanship. 90pp.,processed, illus. Washington,D.C.,1939.

U.S.Congress.House.Committee on flood control. Status of flood-control legislation and works - precipitation flood forecasts,and river stages - watershed protection,retardation,soil stabilization,reforestation, stream flow and discharge. Hearings...seventy-sixth congress,first session on amendments to flood control acts of 1936,1937 and 1938 including H.R.4291...May 2 and 3,1939. 64pp. Washington, U.S.Govt. print.off.,1939. 290 Un33St

U.S.Tennessee valley authority. TVA experimental plant foods,their testing and demonstrating through cooperation of state land grant colleges and universities,U.S.Department of agriculture and organizations of farmers. 5 numb.1.,mimeogr. Knoxville,Jan.1,1939. 173.2 T25Tve

Experimental materials are applied generally to soil-holding and fertility crops by groups of farmers on small watersheds.This testing is to make possible determination of the broad economic returns resulting to the community from use of the materials and of the program's benefit to watershed protection.

U.S.Tennessee valley authority.Water control planning department. Hydraulic data division. Precipitation in Tennessee river basin, annual 1938. v.p.,mimeogr. [Knoxville,1939?] 173.2 T25Pre

TRANSLATIONS ON FILE IN THE

SOIL CONSERVATION SERVICE LIBRARY

Anonymous. The Sapindus(Sapindus utilis)(Le Sapindus (Sapindus utilis)) Rev.d'Hort.et d'Agr.de l'Afrique Nord.28(12):263-268. December 1934. Translated by K.Dacy,March 6,1939.

Donat,Josef. Bed attack and bed-load transport(Ueber schlangriff und geschiebetrieb)
From Wasserwirtschaft,heft 26 and 27,1929.

Gerhardt,Paul. Handbook of German dune culture.(Handbuch des deutschen dudenbaues) Berlin,1900
Translated by D.H.Fullerton.

Putzinger,Josef. Grade adjustment of bed-load carrying streams and rivers(Das Ausgleichgefälle geschiebeführender wasserläufe und flüsse) Ztschr.des Oesterr.Ing.u.Arch.13:119-123,illus. Mar.28,1919.

Schaffernak,Fritz. The theory of bed-load transport and its application(Die theorie des geschiebetriebes und ihre anwendung)
From Zeitschrift des Oesterr.Ingenieur und Architekten,heft 11 und 12,1916.

Tessier, L.F. Zones of growth and species of reforestation in the Atlantic region of N.A. (Les etages de vegetation et les essences de reboisement dans la region Atlantique de L'Amerique de Nord) R Rev. des Eaux et Forêts, January 1926, pages 281-287.
Translated by K. Dacy, March 3, 1939.

BIBLIOGRAPHIES AND LISTS

Erosion control in sub-tropical countries: a brief reading list. 5pp., typed. July 29, 1939.

PERSONNEL AND TRAINING

Barnard, C.I. The functions of the executive. 334pp. Cambridge, Mass., Harvard university press, 1938. 249 B25.

This book discusses such subjects as the individual and organization, the principles of cooperative action theory and structure of formal organizations, the theory of authority, the environment of decision, the theory of opportunism, executive functions, executive process and the nature of executive responsibility.

A lecture given by the author several years ago is included on pages 301-322. It is "a shrewd" discussion of "Mind in Everyday Affairs."

Beek, C.H. Foreman training at Calco. Chem. Indus. 44(6):641-645, illus. June 1939.

The author, who has been in direct charge of training at the Calco Chemical Company since 1936, describes the workings of the foremen training courses and the mutual advantages derived by employee and employer.

Bingham, W.V. Administrative ability, its discovery and development. Soc. Personnel Admin. Pam. 1. 17pp., processed. Washington, D.C., April 1939. 249.39 Sol no. 1

Bingham, W.V. Oral examinations in civil service recruitment, with special reference to experiences in Pennsylvania. Civ. Serv. Assembly of the U.S. and Canada. Pam. 13. 30pp., Chicago, 1939. 249.39 C49Pm. 13

Durfee, E.P. What makes a safety engineer click? Safety Engin. 78(1): 15-17, illus. July 1939.

Field, O.P. Civil service law. 286pp. Minneapolis, The University of Minnesota press, 1939. 249.3 F45

Sponsored by the Committee on training for public administration of the University of Minnesota as an aid to personnel officers and draftsmen of laws and regulations for the improvement and operation of public administration.

Hammond, A.M. Job analysis and merit rating. Soc. Adv. of Mangt. Jour. 4(4):100-104. July 1939.

Industrial personnel institute. Personnel and industrial relations. Proceedings of the...institute held at Purdue university, June 28-July 3, 1937; edited by J.F. Walters...and R.J. Greenly. Purdue Univ. Engin. Ext. Dept. Ext. Ser. 41.; Personnel Bul. 2; 164pp. Lafayette, Indiana, May 1938. 249.39 P97 no. 2

Lettered on cover: Engineering bulletin, v. 22; no. 3.

There are four parts as follows: Part I. The organization and administration of personnel and industrial relations work; Part II. Industrial training and education; Part III. Industrial relations; Part IV. Personnel methods and techniques.

Papers of interest are: The place of the personnel function in management, by W.L. Cook, pp. 14-21; The philosophy of personnel in industry, by G.W. Hanley, pp. 21-26; Current problems in education and training in industry, by Albert Sobey, pp. 33-36; The panel method of training, its uses and advantages, by P.L. Dildine, pp. 36-42; The conference method of training, by W.A. Rudolphsen, pp. 42-46; Industrial training at Eastman kodak company, by A.B. Gates, pp. 53-66; Measuring attitudes of employees toward training, by H.H. Remmers, R. Greenly, H.E. Geiger and L. Tussing, pp. 67-72; Factors to be considered in an apprenticeship training program by M.R. Bass, pp. 73-80; Rating industrial employees, by H.L. Humke, pp. 137-149.

Macmahon, A.W. and Millett, J.D. Federal administrators; a biographical approach to the problem of departmental management. 524pp. New York, Columbia university press, 1939. 249.3 M22

"In presenting the detail in which the outlines of an incipient system of departmental management can be traced, this book falls into three parts:

"The first part treats the existing personnel at the centers of the departments...

"The second part is historical, tracing the offices of Assistant Secretary and Under-Secretary from their establishment in the several departments and summarizing the careers of all who have filled them...

"The third part carries the analysis of management to the bureau level, examining the mode of selection, the training, and the tenure of the bureau heads..."

Melton, P.W. Careers in federal government administration. Jour. Soc. Adv. Mangt. 4(2):49-53. March 1939.

Discusses opportunities for and training of public administrators.

Mosher, W.E. The making of a public servant. Natl. Munic. Rev. 28(6): 416-419, 437. June 1939.

"Pioneer in methods of education for the public service believes that administration will shortly take its place as one of the sciences; cites increasing need for trained leaders in the field of government."

Stewart, Ward. An experiment in service rating. Personnel Admin. 1 (10):1-5. June 1939.

Description of a new feature in the United States Housing Authority's service rating plan.

Turner, G.C. Executive training. Jour. Soc. Adv. of Mangt. 4(4):87-93, 99. July 1939.

"The discussion of executive training in this article is based on

'Management Training Programs in Industry,' a questionnaire study sponsored by The Society for the Advancement of Management and the Graduate School of Business Administration, Harvard University, April, 1939....

"Companies were questioned on dates of program organization, number of men trained, recruiting methods, standards for trainee selection, compensation, turnover, assignments to permanent jobs, and the objectives of training..."

U.S. Dept. of agriculture. Office of personnel. How to start a training program. 33pp., processed. Washington, D.C., July 1939. 1.917 T2H83

"This handbook has been prepared to answer questions most commonly asked by chiefs of bureaus and other administrative officials who plan training programs. The first section is concerned with statutes, executive orders, and regulations that affect employee training. In the second section there are described staff training organizations that have been effective in the bureaus and other agencies of the Department. In the third section, there are suggested procedures for keeping employees, supervisors, and officials informed about the objectives and results of training programs."

U.S. Dept. of agriculture. Office of personnel. Report of committee on in-service training. 40pp., processed. Washington, D.C.? April 1939 1.9 P432Em

Contents: Section I. Training in administration and supervision; Section II. Professional, scientific and technical training; Section III. Training in office and manual skills; Section IV. Post-entry education; Section V. Pre-entry education.

White, L.D. Training for public service: University of Chicago. Natl. Munic. Rev. 28 (8): 570-572. August 1939.

FINIS

